Red Line/Blue Line Connector Project
Working Group Meeting #2

LOCATION OF MEETING: Saltonstall Building, 100 Cambridge St., Boston

DATE/TIME OF MEETING: May 18, 2009, 4-6:00 pm

Working Group Members:
John Achatz, Beacon Hill Civic Association
Marie Cantlon, West End Civic Association
Noah Chesnin, Conservation Law Foundation (alternate)
Joe Crowley, Massachusetts General Hospital (alternate)
Robert D'Amico, Boston Transportation Department
Jim Fitzgerald, Boston Redevelopment Authority
Michael Lambert, City of Somerville
David Loutzenheiser, Metropolitan Area Planning Commission
Thomas Nally, A Better City
Robert O'Brien, Downtown North Association
Jeff Rosenblum, City of Cambridge
Laura Sargent, Office of Representative Martha Walz, (alternate)
Michael Sulprizio, Office of Representative Carlo Basile (alternate)
Ryan Tully, City of Chelsea
Leah Walczak, Historic New England
John Vitagliano, Town of Winthrop

Public:
Jeb Bobseine, Boston Courant
Dan Murphy, Beacon Hill Times

Staff:
Kate Fichter, Executive Office of Transportation (EOT)
Scott Hamwey, EOT
Mark Pelletier, STV
Mark Ennis, STV
Kristine Gorman, STV
Scott Peterson, CTPS
Kristine Wickham, VHB
Regan Checchio, Regina Villa Associates (RVA)
Nancy Farrell, RVA

PURPOSE/SUBJECT: This was the second meeting of the project working group concerning the connection of the Red line and Blue Line at the Charles/MGH and Bowdoin stops respectively. This meeting provided updates on the project team's engineering progress, evaluation criteria, tunneling construction methodology, and ridership modeling.

MEETING HANDOUTS:

- Contact List of Red Line/Blue Line Working Group and Project Team
- Meeting Guidelines
- Track Diagram – Existing Conditions

Introduction and Initial Comments

Nancy Farrell, Manager of Public Involvement from Regina Villa Associates, opened the meeting and asked the participants to introduce themselves (see the attendance list). Ms. Farrell said that the Executive Office of Transportation (EOT) asked her to facilitate the meetings. Ms. Farrell briefly reviewed the Meeting Guidelines that were distributed and accepted at the last Working Group meeting.

Tunnel Construction Options and Impacts

Mark Pelletier, Project Manager for STV, reviewed the project schedule, noting that the Conceptual Engineering Report will be presented in September, with three options: no-build scenario; a scenario with a modified Bowdoin Station; and a scenario with no Bowdoin Station. Currently, the team is narrowing down those options.

Mr. Pelletier presented eight tunnel construction methods, which can be broken in to two categories: support of excavation (SOE) methods and mining methods.

SOE methods include:

- Slurry
- Secant Pile Walls
- Jet Grout/Geojet Walls
- Solider Pile and Lagging Systems
- Horizontal bracing

Mr. Pelletier showed examples of each of these methods. [The presentation is posted on the project website, www.mass.gov/eot/redblue, including photos or renderings of each method. Advantages and disadvantages of the methodologies are also included in the presentation.]

Mining methods include:

- Sequential Excavation Method
- Tunnel Boring Machine Method

Mining systems create less street level construction disturbance and less interference with utilities. They are typically considered to be expensive relative to other excavation techniques.

Presentation and Discussion of Evaluation Criteria

Kristine Wickham, VHB, explained that a set of evaluation criteria will be used to determine which options are carried forward into the Conceptual Engineering Report and ultimately, the Draft Environmental Impact Report (DEIR). The criteria will be evaluated by EOT and the project team to rate and rank alternatives against one another.

Ms. Wickham reviewed the preliminary evaluation criteria that the project team developed:

Transit Service/Operations
- Station Access
- Operations
- Storage and Layover

Construction Impacts
- Construction Duration
- Traffic Impacts
- Pedestrian Impacts
- Environmental Impacts (related to construction)
- Impacts to Blue Line Operations
- Impacts to Red Line Operations
- Impacts to Businesses and Residents

Ease of Implementation
- Available right of way
- Impact on other Transportation Projects
- Compatibility with State Implementation Plan (SIP)

Environment
- Historic/Archeological
- Noise and Vibration
- Groundwater/Stormwater
- Parklands

Costs
- Capital Costs
- Operation and Maintenance Costs

Ms. Wickham invited members of the Working Group to comment on these proposed criteria.

Bob O'Brien, Downtown North Association, suggested reorganizing the evaluation criteria list so "Community Impacts" becomes its own section. He suggested "access to Mass General Hospital" as one of the sub-headings for that category.

Ms. Farrell suggested Working Group members take some time with the list and send any other suggestions or edits to her by June 1. [NOTE: Members did submit comments on the proposed criteria, which will be posted on the project website.]

Presentation of Alternative Options
Mark Ennis, STV, presented track plans and profiles for eight options. These options identified:

- MGH -1 and MGH -5 options, below grade Blue Line Stations and track nearest the Charles MGH Station;
- two (BE) Bowdoin Eliminated;

- two (BR) Bowdoin Relocated; and
- two (MT) Mined Tunnel options.

MGH – 1: This alternative locates four tracks west of Charles/MGH to provide MBTA storage. This option provides a challenge for construction work due to the width of the footprint (60-70 feet) which would mean less room for relocating the utilities in the area. The main point of egress would be in the recently renovated MGH station and the other would be at the other length of platform, to a stairway at the median of Cambridge Street.

MGH – 5: This alternative features elongated siding tracks and a narrowed excavation (to three tracks) to provide the same MBTA storage as seen in MGH- 1. This option would necessitate a vehicle driver walking down a length of tunnel to access the MBTA car, which may not be possible.

BR-3: This alternative shows Bowdoin Station moving to the west of the existing station, with two side platforms, which keeps the tunnel narrow until the station. Side platforms create challenges of access because four exits are required. There would be a new headhouse located above the Bowdoin loop and a tunnel to the eastbound platform.

BR-4B: This alternative features a center platform at relocated Bowdoin Station, with a headhouse located further to the west than BR-3. This option provides a good balance of distance with simplified access to the platform. Only one emergency egress is required. The width of the excavation does widen at the approaches to the station, due to the center platform.

BE-1: This alternative features the elimination of Bowdoin Station. In this alternative, the existing track and tunnel structure would be reused. A disadvantage of this option is that it requires a significant rework of the station, with columns relocated to accommodate the tracks. A sharp curve would also be necessary to keep the alignment within the existing right-of-way.

BE-3: This alternative is similar to BE-1, but smoothes out the curves during the transition to Cambridge Street.

Mr. O'Brien asked what the implications of this approach would be for MGH. Mr. Ennis said that the existing Bowdoin Station area could be used as storage for two of the tracks, which would lessen the need for additional storage at Charles/MGH. Mr. Ennis added that he needed to discuss this possibility with MBTA Blue Line Operations to ensure it is a workable alternative.

MT-3: This alternative shows a mined tunnel with a significantly deeper track profile. The depth of the station would mean that it would be a longer distance for pedestrians to travel to enter and exit the station. Mr. Ennis also noted that operations would be moved to the edge of the Government Center platform, so maintaining operations at Government Center during construction would be a challenge. He noted that this approach would also need a crossover or tailtrack, an issue that would need to be vetted by MBTA Operations. Based on comments from the last meeting, the project team is looking at moving the shaft to the vicinity of Bowdoin St. to maximize the length of the mined tunnel. Mr. Ennis added that the construction work from Government Center to Bowdoin would still need to be a cut and cover tunnel.

MT-2: This approach shows two separate tunnels (one for each track) that would be offset from one another.

Tom Nally, A Better City, asked where the Blue Line would terminate during the Government Center construction. Mr. Ennis said it would terminate at the same point.

Mr. Loutzenheiser asked if it was possible to mix and match aspects of each alternative. Mr. Pelletier said it was.

Jim Fitzgerald, Boston Redevelopment Authority (BRA), asked if the ridership analysis considers the access points to each station. Ms. Farrell then introduced Scott Peterson, Central Transportation Planning Staff (CTPS), who will be working on the ridership analysis.

Ridership Modeling for the Project

Mr. Peterson presented the ridership modeling methodology. He noted that CTPS is the support staff to the Boston Metropolitan Planning Organization (MPO) and maintains a regional travel demand model to assist the MPO with federal certification work, like the Regional Transportation Plan (RTP) and Air Quality Conformity. The model set is used to examine transportation projects in a consistent and unbiased approach. The same model is used for the Green Line Extension Project, Silver Line Phase III and Assembly Square.

Mr. Peterson explained that his task for this project is to examine the extension of the Blue Line from Bowdoin to the Red Line Charles/MGH station via Cambridge Street with different service plan options. His analysis will generate forecasts of ridership, transfer activity, auto diversions, traffic volumes, and air quality impacts.

The model area includes 164 cities and towns in Eastern Massachusetts, divided into 2727 Transportation Analysis Zones (TAZs). The model set was estimated using data from a Household Travel Survey, several Transit Passenger Surveys, the 2000 U.S. Census data, and an employment database for the region (prepared by CTPS).Mr. Peterson noted that the model contains four areas of analysis: trip generation, trip distribution,mode choice (walk, auto, transit), and assignment. The model is then run for the forecast year, 2030, using future year inputs such as projected population and employment (developed by MAPC and approved by the Boston Region MPO) by TAZ.

Ridership forecasts are first developed for a no-build alternative, and then the network is updated to reflect the build options by the project. CTPS will be relying on service and design characteristics that will be provided by STV during the analysis. Design characteristics include access points (as Mr. Loutzenheiser inquired) and the size of the platform. The outputs of these model runs can then be compared to the no-build to see the changes in travel patterns.

Model outputs will be for highway (traffic volume by time period, congested speeds) and transit (linked transit trips, unlinked transit trips by mode, station use by mode and time of day, and transfers). The model will also look at mobile sources of emissions like VOC, NOx, CO, PM, CO2).

Mr. Loutzenheiser asked if the model includes bicycling. Mr. Peterson said that bicycling was included in the "walk" mode choice, although he noted that the speed assumption is slow for bikes. Mr. O'Brien suggested emphasizing the difference between the two modes in future analysis.

Marie Cantlon, West End Civic Association, asked about the timing. Mr. Pelletier said that alternatives will be selected by September. The Final Environmental Impact Report (FEIR) is due by June 2010. The final design is scheduled to be completed by December 2011. He noted that there is currently no funding for construction.

Noah Chesnin, Conservation Law Foundation, asked if all the criteria will be weighted equally during the screening process. Ms. Wickham said that is her preference, but the team is willing to listen to feedback from the Working Group on this issue. She suggested looking at the initial spread of the results to determine what makes sense.

Mr. O'Brien said the criteria of "ease of implementation" and "coordination with other projects" is most relevant to the redesign of the Government Center station. He thinks that should be mentioned specifically.

Ms. Farrell suggested emailing comments to her regarding the evaluation criteria before May 29. Mr. Pelletier added that one of the most important parts of the process will be establishing the appropriate criteria for screening.

John Achatz, Beacon Hill Civic Association, suggested adding "permanent surface detours" as a criterion. Mr. O'Brien suggested explicitly detailing the surface impacts, noting that cut and cover tunnels will likely be unacceptable to the community after the Cambridge Street reconstruction.

Mr. O'Brien said that having a second entrance at Government Center, in the vicinity of the JFK Building, diminishes the need for Bowdoin. He suggested asking the MBTA to accelerate this decision, which will inform the choices made in this project. He said that the scope, schedule and cost of the decision on the Red/Blue project should be made clear to MBTA Planning. Mr. Hamwey pointed out that currently this project is unfunded for construction. Mr. O'Brien said that it is conceivable that funds might be available in a stimulus package for this second entrance that would help this project in the long-term. He proposed that the Working Group members send a letter to this effect to the MBTA. Mr. Nally said that more is known about the costs of the second entrance than is known about the long-term costs of not providing one. He added that the issue will also have impacts on the storage decision. Working Group members agreed to provide comments and draft a letter to the MBTA.

Ms. Cantlon said she did not understand how Mr. Peterson could make predictive ridership projections based on a service that does not exist. Mr. Peterson said that there is a wealth of survey data on why and how people make trips and the choices they make. The model provides an unbiased appraisal of what they are likely to do in the future.

Public Comment
There were no questions or comments from members of the public.

Next Meeting
Ms. Farrell noted that the next two Working Group meetings will be held in July and September. The September meeting will be held prior to a public meeting. The dates of the meetings will be sent to the members via email and posted on the website.

EOT Contract No.: STV_REDBLU
STV Contract No.: 40-14212
Meeting Minutes Prepared by: Regan Checchio, RVA